Veracity Technology Spearhead

Enabling end-to-end veracity within value exchange ecosystems

Mapping Trust

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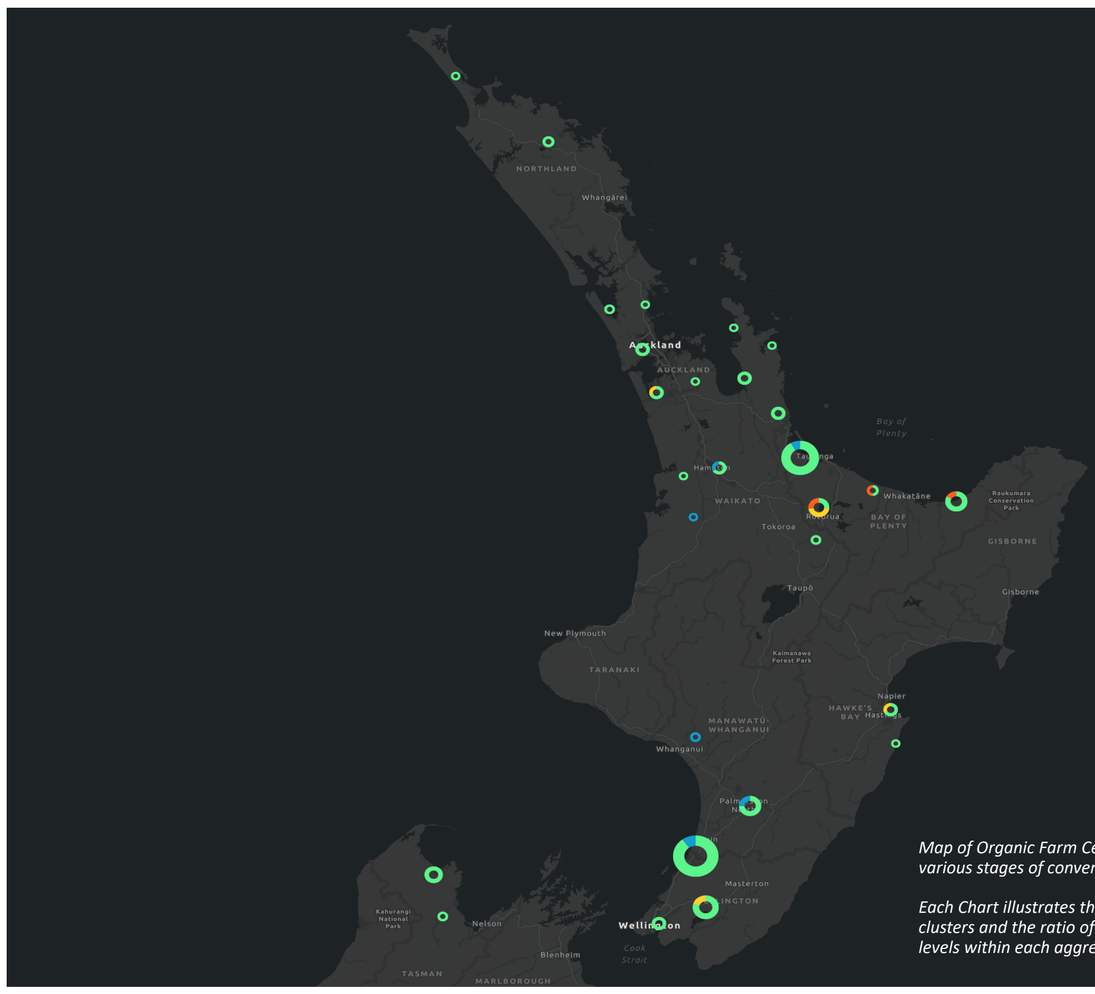
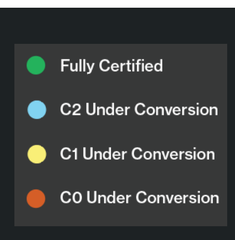


Map of Organic Farm Certifications at various stages of conversion

Each Chart illustrates the aggregate clusters and the ratio of certification levels within each aggregate.



Visualisation exploration of Authenticity percentages along various stages

Mapping Trust

Mapping Trust is a Masters of Design research project by Ethan Sheaf-Morrison supervised by Tim Miller and Leon Gurevitch at Victoria University of Wellington. The research project explores the role that visualisation has in connecting the human elements of trust with the computational aspects of authenticity.

Visualising Veracity

Visualization is crucial in bridging the gap between the end user and the data, fostering engagement and a sense of ownership over the information. This user buy-in is essential for ensuring that the data's veracity is trusted beyond computational systems (Keim et al., 2008). The transparency offered by effective visualization methods can be harnessed to not only build trust but also to explore potential 'blind spots' and vulnerabilities within the dataset (Kirk, 2019). By making data more accessible and understandable, visualization allows for a deeper examination of its accuracy and reliability, highlighting areas that may need further scrutiny or validation (Chen et al., 2008).

Transparency promoting trust

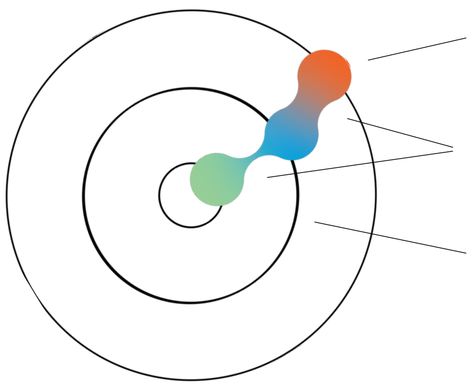
Transparency in data visualization promotes trust by ensuring that consumers are well-informed about the origins and specifics of the data they are using. This open approach builds a foundation of credibility and goodwill, ultimately enhancing the overall relationship between the data provider and the consumer.

Percentage of Trust in data visualisation

In the practice of data visualization, it is common for most visualizations to limit their source information to a singular input of data. This approach, however, can be seen as a flaw given the potential inconsistency in the trustworthiness of datasets. Recognizing this issue presents an opportunity to explore data visualization with greater granularity, data from multiple sources to enhance reliability and integrating computational veracity systems developed during the spearhead. Thus, having the potential to develop systems that would allow us to score and visualize the % of truthfulness.

Visualising trust at different levels

The Mapping Trust project aims to investigate the role of trust across different stages within the supply chain, focusing on the strength of relationships at various points in the process. The evaluation and understanding of 'trust' can be used to enhance the connections between nodes within the chain.



Each point in the process is represented as a 'node'. These carry a weighting of 'trust'. In this case, trust is represented by the certification level

The strength of the relationships between nodes is visualised within the connections between nodes

Different stages of the supply chain are visualised along the concentric rings to show the various layers of certification needed

This approach not only enhances the credibility of the visualized data but also empowers users to make more informed decisions based on the visualizations. By transparently displaying the trust levels, we can foster greater confidence and understanding in the presented data.

Keim, D. A., Mansmann, F., Schneidewind, J., Thomas, J., & Ziegler, H. (2008). Visual Analytics: Scope and Challenges. In Visual Data Mining (pp. 76-90). Springer.

Kirk, A. (2019). Data Visualisation: A Handbook for Data Driven Design. SAGE Publications.

Chen, M., Ebert, D., Hagen, H., Laramee, R. S., van Liere, R., Ma, K. L., ... & Silver, D. (2008). Data, Information, and Knowledge in Visualization. IEEE Computer Graphics and Applications, 34(1), 12-19.

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